

modulator, said housing further including [and] a detector positioned to detect and quantify one or more isolated narrow portions or the near infrared spectrum created by the monochromator;

a communication member between the sensor and monochromator to transfer the sensed near infrared radiation to the monochromator; and

a processor operatively connected to the monochromator, said processor being capable of identifying and determining the amount of constituents in the substance based on the detected and quantified one or more isolated narrow portions of the near infrared spectrum[;]

[at least one of the housing and the substance location being movable relative to the other].

21. (Amended) A method of analyzing a substance, said method comprising the steps of:

irradiating the substance with near infrared light;

with a sensor, sensing near infrared light, which reflects off or passes through the substance [while moving at least one of the substance or the sensor relative to one another];

isolating the sensed radiation into one or more narrow portions of the spectrum, said step of isolating being selected from the group consisting of stationary interferometry, stationary Hadamard mask processes, use of an acoustic-optic tunable filter (AOTF), and use of an electro-optic modulator;

analyzing one or more of the isolated narrow portions; and

determining the identity and amount of constituents in the substance.

33. (Amended) A method of analyzing constituents of a substance in real time in a non-laboratory setting subject to diverse and changing environmental conditions, said method comprising the steps of:

irradiating the substance with near infrared light;

with a sensor, sensing near infrared light that [which] reflects off or passes through the substance while moving [at least one of the substance or] the sensor relative to the substance [one another];

isolating the sensed radiation into one or more narrow portions of the spectrum;

in real time, analyzing one or more of the isolated narrow portions; and

determining the identity and amount of one or more constituents in the substance.

39. (Twice Amended) A system for measuring constituents of a substance in real time in a non-laboratory setting subject to diverse and changing environmental conditions, said system comprising:

a light source capable of producing near infrared radiation in a controllable direction to a substance location;

a sensor oriented towards the substance location and capable of sensing near infrared radiation reflected from or passing through a substance at a substance location;

a sensor oriented towards the substance location, said sensor being [and] capable of sensing near infrared radiation reflected from or passing through said substance at the substance location;

a monochromator having no moving optical components, said monochromator being selected from the group consisting of a stationary interferometer, a stationary Hadamard mask, an acoustic-optic tunable filter (AOTF), and an electro-optic modulator, said monochromator being [and] capable of isolating narrow portions of the near infrared spectrum and having a detector positioned to detect and quantify one or more isolated narrow portions of the near infrared spectrum created by the monochromator;

a communication member between the sensor and the monochromator to transfer the sensed near infrared radiation to the monochromator; and

a processor operatively connected to the monochromator, said processor being capable of identifying and determining the amount of constituents in the product based on the detected and quantified one or more isolated narrow portions of the infrared spectrum;

[the light source, sensor, monochromator, communication member and processor being movable relative to the substance location or vice versa].